THE ARGUMENT FOR BETTING ON GOD AND THE POSSIBILITY OF INFINITE SUFFERING

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1. Introduction

The argument for Betting on God says that you should believe in God, regardless of other evidence, purely out of self-interest. In this paper, I challenge this argument by assessing the premise that believing in a particular God always guarantees the greatest expected utility.

The author's argument for belief in God [1, p. 38] goes as follows:

The Argument for Betting on God:

(BG1) One should always choose the option with the greatest expected utility

(BG2) Believing in God has a greater expected utility than not believing in God

(BG3) So, you should believe in God

BG1 should be uncontroversial. If you expect an action to bring you the most utility (i.e. be the most useful), why wouldn't you choose to do it?

To justify BG2, the author uses a so-called "decision matrix" to compute the expected utility of each combination of action and possible outcome. The possible actions are placed on the rows, and the possible outcomes are placed on the columns, except for the last column, which is the calculated expected utility. At each intersection of a row and column, we place the utility we gain from that combination of action and outcome. The expected utility for a given action is computed by multiplying the utility of each action-outcome pair in that row by the probability of the corresponding outcome occurring, and summing up all of those values.

Here is the decision matrix the author proposes on [1, p. 38] which gives the expected utility for believing or not believing in God.

	God exists (50%)	**God doesn't exist (50%)**	**Expected utility**
Believe in God	∞	2	∞
Don't believe in God	1	3	2

Table 1. Author's decision matrix

[1]Figure computed programmatically during document compilation. Discounts content in tables and the AI contribution statement.

Note that the numerical utility values themselves have no meaning, and they are meant to be viewed relative to each other. Utility doesn't literally provide an empirical measure of "usefulness" or "happiness."

We assign the various finite utilities as we see fit, based on how much each scenario benefits us. In the case where God does exist, and you believed in God, then you are rewarded with an eternal afterlife of bliss and pleasure in heaven. This reward is infinitely greater than any possible reward on earth, so it has a utility of ∞.

So, the expected utility for not believing is $0.5 \times 1 + 0.5 \times 3 = 2$, and the expected utility is $0.5 \times \infty + 0.5 \times 2 = \infty$. If, according to BG1, you should pick the option with greatest expected utility, clearly you should choose to believe in God, because the expected utility is ∞.

The exact utilities don't matter much, since any finite utility you could gain for atheism cannot possibly be greater than the infinite expected utility of believing in God. Also, as the author points out on [1, p. 40], the exact probabilities don't matter either since multiplying them by ∞ still results in the expected utility of ∞.

I will show that the Argument for Betting on God fails because BG2 fails. In section 2, I argue you cannot determine whether or not believing in God has the greatest expected utility because the decision matrix approach fails when possible outcomes involving infinitely negative utilities are introduced. In section 3, I address a possible response to this objection.

2. Possibility of Infinite Suffering

It is possible there are more gods than just the one that sends you to an eternal afterlife for believing? The author partially addresses this in [1, pp. 43-44], using the example of Zeus. Zeus will only reward those who believe in him with an eternal afterlife of pleasure. So, if you believe in the wrong god, you don't go to the afterlife. The author concludes either believing in Zeus or the Christian God still has expected utilities of ∞, while being an atheist does has a finite expected utility. Therefore, it is still preferable to believe in *some* god that may grant you an eternal afterlife, although no argument is made for *which* god.

However, this leaves out the possibility of gods who punish you for some reason. For instance, suppose there exists an *Evil God* who sends anyone who believes in any god to hell for eternity, and does nothing to atheists.

Let us modify our decision matrix to model an outcome where the Evil God exists.

	Correct god exists (33.3%)	**No god exists** (33.3%)	**Evil God exists** (33.3%)	**E.U.**
Believe in some God	∞	1	$-\infty$	?
Don't believe in any God	2	3	4	4.5

TABLE 2. Possibility of an Evil God

We've added the new option to our matrix. For the sake of argument, let's say each option has an equally likely outcome. Again, the exact probabilities don't really matter when we're multiplying them by infinity.

The utilities are mostly the same as before. Not believing in any god and the Evil God existing is now the best case for the atheist since they avoided infinite suffering. However, the theist now faces the possibility of the worst case of all: eternal punishment for believing in the wrong god. If eternal bliss in heaven has a utility of ∞, then it follows that we should represent eternal punishment in hell with a utility of $-\infty$.

There is a problem: how do we calculate the expected utility of believing in god? We have $0.333 \times \infty + 0.333 \times 1 + 0.333 \times -\infty$. What is $\infty - \infty$? A naive answer might be 0, but infinity is not a number in the traditional sense. It makes no sense to add or subtract infinite values. For instance, try and subtract the total amount of integers (∞) from the total amount of real numbers (also ∞)[2]. Clearly, this notion is meaningless and we cannot obtain a solution. So, we consider $\infty - \infty$ an *indeterminate form*. So, the expected utility is now *undefined*.

Consider the following argument:

THE INDETERMINATE UTILITIES ARGUMENT:

(IU1) If the expected utility of believing in god is undefined, then we cannot compare the expected utilities of believing in god or not believing in god.

(IU2) The expected utility of believing in god is undefined.

(IU3) So, we cannot compare the expected utilities of believing in god or not believing in god.

(IU4) If we cannot compare the expected utilities of believing in god or not believing in god, then we cannot determine if believing in god has a higher expected utility than not believing in god.

(IU5) So, we cannot determine if believing in god has a higher expected utility than not believing in god.

We just showed why the premise IU2 is true, and the conclusion IU5 is in direct contradiction with BG2. So, if IU5 holds, then BG2 must fail.

[2]Famously, this infinity is "larger" than the infinite number of integers in the sense of cardinality (G. Cantor). But subtracting them still makes no mathematical or physical sense.

It's important to note that the Indeterminate Utilities argument doesn't say that the *opposite* of BG2 is true. It doesn't argue that the expected utility of being an atheist is greater. In fact, it doesn't say anything about the expected utilities, except that they cannot be compared. If they can't be compared, then we can't say for certain which option has the higher expected utility. Since BG2 claims that believing in god must have the higher expected utility, it is a false premise.

3. Addressing Objections

3.1. **The Evil God is not plausible.**

One might argue that it is not plausible there is an Evil God who punishes all theists, including their own believers. Many religions present a god that rewards believers and at most punishes disbelievers. None of the major world religions propose an Evil God who punishes all believers. It's much more likely that a benevolent god exists than an evil one.

I contend that it doesn't matter whether or not the Evil God is less plausible than a benevolent god. Surely, if a rational atheist who is unconvinced by all the world's scriptures can still concede that there is at least a non-zero chance that some god exists, the rational theist should also concede that there is a non-zero chance that the Evil God exists. All it takes is that non-zero chance, no matter how small, because multiplying it by $-\infty$ still results in the undefined expected utility.

3.2. **Finite utilities.**

One might argue that we can avoid using ∞ to ensure that all expected utility calculations are defined. Instead, suppose that the utility of going to heaven is just an immensely large finite number. The utility of going to hell is likewise a very negative number. All of our expected utility calculations will be defined, and given sufficiently large utilities, we should be able to make a similar argument for believing in god.

The problem with this argument is that infinity has a special property argument relies on. Namely, any number multiplied by ∞ is still ∞, so the exact probabilities we set for the existence of God don't matter. This is important for defending against the objection the author mentions on [1, p. 40], that the probabilities are possibly incorrect, since the numbers don't matter anyways.

If, instead, only finite utilities were used, then the theist must contend with the concern that the probabilities in the matrix are wrong. There could conceivably exist a matrix with probabilities for a benevolent god and an Evil God such that the expected utility of atheism is actually higher. The issue is we cannot say for sure what the probabilities of the benevolent god and the Evil God existing are. If we cannot know what the actual probabilities are, then we cannot know the final outcome of our matrix. So, without knowing the final outcome of the matrix, we still cannot determine whether or not believing in god has greater expected utility, and BG2 still fails.

4. AI Contribution Statement

"I did not use AI whatsoever in the writing of this paper."

References

1. Korman, D. Z.: Learning From Arguments: An Introduction to Philosophy. The PhilPapers Foundation (2022)